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June 21, 1973

N73-26360

Mr. Roger Hicks National Aeronautics and Space Administration Code TF6, Building 17 Johnson Space Center Houston, TX

SUBJECT: SR 397 Skylab EREP Monthly Report for the month of April, 1973 Contract NAS 9-13301

Gentlemen:

Activities during the month of April, 1973, were concerned with pre-launch preparation. Equipment preparation and personnel staffing activities consumed most of the time during this reporting period.

Overall Status

The field spectroradiometer system to be used in conjunction with the S191 experiment has been placed into operational status and has been prepared for mounting in the instrument van. An electronic control module has been designed and is being constructed and will be installed into the system early next month. The mobile aerial tower used to support the field spectroradiometer is being overhauled and should be delivered in time for the Ribeyre Island mission. Two of the graduate student staff necessary to carry out the project have been hired, and position offers have been made to several other students. Preliminary work on reformatting of Skylab tapes and of the field spectroradiometer tapes has been initiated. Preliminary arrangements for digitizing of the multi-spectral photography both from the spacecraft and supporting aircraft had been made with Mead Technology Corporation. Sample photographs have been sent to Mead Technology Corporation in order to obtain sample digital tapes of the digitized photography. After these test tapes are received, reformatting procedures will be developed in order to integrate photographic and multispectral digital data.

Scientific Recommendations

It is highly desirable that data be acquired at sun angles in excess of 45° in order that the maximum benefit be obtained from the S191 experiment. The MRD calls for 30° sun angles, and although the data can be reduced, if data is acquired under such sun angle conditions, some of the results of the experiment would be compromised.

RELAUNCH PLANS) 973 (Purdue Univ.) CSCI 0 SKYLAB (E73-10760) [SK Monthly Report, 2 p HC \$3.00 Mr. Roger Hicks June 21, 1973 Page 2

(C) Expected Accomplishments During the Next Reporting Period '

The field spectroradiometer system should be in complete operational status during the next reporting period. Arrangements will be complete with the Ribeyre Island test site authorities, and the various logistical matters necessary to support the field instrumentation system will be accomplished in time for the proposed EREP overpass. The field spectroradiometer data that is acquired during the EREP overpass should be reduced by the end of the May reporting period, and appropriate surface observation necessary for training the LARSYS classifier will be obtained in the vicinity of the Ribeyre Island test site and along track 15 soon after the EREP overpass.

(D) Results

Since this reporting period is concerned with a pre-launch preparation phase, no significant results as such are reported.

(E) Travel Summary and Plans

No travel was undertaken dwing the month of April on behalf of this contract, but site visits are reanned during the month of May. Visits will be made to the authorities who supervise the test sites along with visits to the test sites themselves to determine the details of the instrument setups. At the present time, travel has only been definitely planned to the Ribeyre Island test site area.

Respectfully submitted.

LeRoy P. Silva

Principal Investigator

Program Leader - Measurements

LFS:dls

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